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ABSTRACT

A study compared the effectiveness of intensive phonics instruction (a combination of the Distar and Lippincott methods) with a language experience approach (Success in Reading program) in the first and second grades. Subjects, 48 first and second grade students in the Hillsboro School District in Oregon, were divided into two groups (matched pairs) and mixed across grade levels and teachers. The effects of the two treatments were assessed on the following variables: (1) phonics application; (2) oral reading fluency; (3) spelling; (4) reading comprehension; (5) composition; and (6) attitude and self-concept. Results indicated that students in the intensive phonics group scored significantly higher in phonics application and reading comprehension and achieved higher (but not statistically significant) than the language experience group on all variables except attitude and self concept. Findings suggest that modifying both programs would improve their effectiveness. Also, empirical data is needed to for an objective evaluation of reading programs. (Four figures of data are included.) (RS)

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A COMPARISON OF THE EFFECTS OF THE LIPPINCOTT-DISTAR READING PROGRAM WITH THE SUCCESS IN READING PROGRAM IN FIRST AND SECOND GRADES

Conducted under the sponsorship,
and through the services of the
Hillsboro Elementary School District
Curriculum Advisory Committee

This study was conducted during the 1987-1988
school year and was published in December of 1988.

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INTRODUCTION

Success in Reading is a siren's song. The name, itself, promises exactly what everyone wants. The program does away with reading groups, with teacher's manuals, and with "artificial" barriers between the language arts. Best of all, the method does not require any new materials. Proponents consider it to be a better way to organize children for instruction and to teach, regardless of the basal series in use.

For all of these reasons, many teachers have begun using the Success in Reading methods described by Anne H. Adams (1978) in a consciencious attempt to help their children do better not only in reading, but in all of the language arts and in self-esteem as well. Many of the "Success" teachers are compassionate towards children, willing to improve their own background through continued training, and independent and resourceful enough to lead the way with an educational innovation.

By comparison, intensive phonics methods and teachers have an image problem. Children are usually grouped. Instruction focuses upon isolated sounds, sound blending, and the mechanical decoding of materials of almost no literary value. Intensive phonics is also the target of pejoratives such as the "choke and grunt" method of teaching reading. Perhaps the biggest problem is that intensive phonics instruction has been around for so many years. The intensive phonics teachers are in the unenviable position of sticking to something very old. The suspicion is that they are, somehow, not as progressive and child-centered as the "Success" teachers.

The Hillsboro School District has had a formal adoption of two intensive phonics programs, Distar and Lippincott, for six years. A substantial number of primary teachers have taken workshops on Success in Reading and have begun to use the methods in coordination with adopted materials. Feelings about both methods are very strong.

The question is the effect on children. Teachers observe that children are progressing using either method, but there has been no way to compare results. There was an obvious need for objective information drawn from a systematic evaluation of program effects. The Curriculum Advisory Committee, working with the Director of Curriculum and Instruction have done the following study in an attempt to answer the following question:

What are the effects of the two basic instructional methods upon six instructional variables: 1. phonics application, 2. oral reading fluency, 3. reading comprehension, 4. spelling, 5. composition, and 6. attitude and self concept?

The following sections of this report describe the design, instruments, results, and conclusions of the study.

DESIGN

The study is a matched pairs design with repeated data points. At first grade, subjects were matched using the Metropolitan Reading Readiness Test. Testing for the six variables was done in April and late May. At second grade, subjects were matched using the Survey of Basic Skills, Reading Total (S.R.A.). Testing was then done for the six variables in October, April, and late May.

There were two treatments. Treatment One, intensive phonics, was a combination of Distar and Lippincott. Treatment Two, language experience, was the Success in Reading plan with whatever type of readers the teacher chose to use.

At first grade, there were two teachers using intensive phonics (Distar-Lippincott combination) and two teachers using the language experience method (Success in Reading). At second grade, there were two teachers using intensive phonics, and three teachers using language experience.

The pairing lists mixed children across various teachers. This was necessary in order to obtain enough pairs from a small original pool. It also served to control, in part, for the teacher variable and to eliminate the possibility of comparing teachers instead of method.

The teachers were all voluntary participants who had been nominated by their principals. All of the teachers had at least two years of experience with the methods they were using and were considered, by principals, parents, and peers to be excellent teachers.

INSTRUMENTS

The purpose of the study was to assess the effects of two treatments on the following variables: 1.) phonics application, 2.) oral reading fluency, 3.) spelling, 4.) reading comprehension, 5.) composition, and 6.) attitude and self concept. Each variable required a separate instrument which will be described in the following section.

1. Phonics Application: The Pairs Test (Bruton, 1977) was used to assess children's ability to decode using whole words, but without context clues. The examiner presented a list including word pairs such as, "pan-pain". The examiner pronounced the first word and asked the child to pronounce the second. The item required children to discriminate the difference(s) between the two words, to decide how that difference changes the sound, and to pronounce the correct word. The test included two items each for fifty-seven, single-syllable, phonic skills.

2. Fluency: A short selection was drawn from a library book that included a mix of pattern and sight words. Children were asked to read the book silently for one minute and then to read the book aloud. The examiners timed the oral reading and recorded the number of words the child pronounced correctly in one minute.

3. Spelling: A list of ten words was drawn from the spelling series that all children were using. Each word was drawn from a different unit in the first and second grade spelling series. Children were provided with ruled paper and a pencil. The examiner gave the spelling test by pronouncing the word, reading a sentence containing the word, and repronouncing the word.

4. Comprehension: Children took the Survey of Basic Skills achievement tests as part of the regular District testing program in April. The Reading Comprehension subtest results were used as a post-test only measure for first graders and as a pre- post- measure for second graders.

5. Composition: Writing samples were obtained by: 1.) presenting the child with a stimulus picture and asking him to think and then talk about it, and 2.) allowing each child ten minutes to write about the picture.

6. Attitude and Self-concept: Each child was given the School Sentiment Index, a non-standardized, 37 item, yes-no questionnaire published by the International Objectives Exchange. The items were directed at feelings about self, peers, teacher, and school subjects.

The examiners were members of the Curriculum Advisory Committee, a group of parents, teachers, and administrators. Examiners were trained by the Curriculum Director. Each examiner administered the battery of tests to both students in a pair.

If there were inconsistencies in administrative procedures, they were probably applied to both children in a pair.

DATA

The most meaningful data came from comparing post-test scores and testing for significance using the Wilcoxon Matched-pairs, Signed-ranks Test. Each pair of subjects was matched within 2 points at the beginning of the year on either the Metropolitan Reading Readiness Test (for first graders) or the Reading Subtest of the Survey of Basic Skills (for second graders).

Phonics Applications: The phonics data is most meaningful when presented by subgroups. There were 57 phonic skills tested. The following table presents the children's scores grouped by the degree of difficulty they had:

Figure One.
Phonic Skill Application Test

Phonic Skills Not Mastered	Problem	Intensive Phonics			Language Experience		
		1st	2nd	Combined	1st	2nd	Combined
0-5	None	3	13	16	2	5	7
6-10	Mild	2	3	5	1	4	5
11-15	Moderate	0	1	1	0	3	3
16-20	Serious	0	0	0	1	1	2
21+	Severe	2	0	2	3	5	8

The combined totals for first and second graders in intensive phonics, indicate that 2 children out of 24 have moderate to severe deficits in phonics that require teaching. Among the language experience students, 13 children out of 24 have moderate to severe deficits in phonics.

The differences between the two groups were significant beyond the .01 level when ranked and compared using the Wilcoxon Matched-pairs,Signed-ranks Test.

Fluency: The data for fluency is presented similarly. The phonics students started out slightly advanced in fluency. The average scores remained in the same relationship at the end.

However, the number of students in each category is quite different.

Figure Two.
Oral Reading Fluency

Words Per Minute	Facility	Intensive Phonics 1rst	2nd	Combined	Language Experience 1rst	2nd	Combined
0-59	slow	3	0	3	5	3	8
60-100	moderate	2	10	12	1	5	6
100+	fluent	2	8	10	1	9	10

The differences in results were not large enough to attain significance, but obviously favor the phonics students.

Comprehension: Growth scale values were used because of their utility in comparing scores from two different tests at two different grades. The average, post-test, growth scores are presented in the following table:

Figure Three.
Survey of Basic Skills, Comprehension Subtest

	Intensive Phonics Growth S.V.	%ile	Language Experience Growth S.V.	%ile
First Grade	204	55	180	31
Second Grade	284	73	226	27

Although the data strongly favors the intensive phonics groups, the computed T score of 54 was just over the T score of 52 required for significance at the .05 level. Had the groups been slightly larger, the scores would have been significant.

Spelling: The data for spelling is also presented by skill level in the following table:

Figure Four.
Spelling Test

Score	Skill Level	Intensive Phonics			Language Experience		
		1st	2nd	Com	1st	2nd	Combined
9-10	High	4	9	13	1	4	5
7-8	Good	2	5	7	3	4	7
5-6	Fair	1	2	3	2	3	5
4-	Poor	0	1	1	1	6	7

The differences in average scores were not statistically significant. However, the intensive phonics instruction, in this case, clearly produced more children with high spelling ability and few children with poor spelling ability.

Writing: Writing samples were scored holistically by members of the Curriculum Advisory Committee. The group practiced scoring with several student papers and then scored each student paper using a simple score of 1,2,3,or 4 with 4 being the highest.

Seventeen students in the intensive phonics group outscored their language experience counterparts. Eight language experience students outscored their phonics group counterparts. The differences were not significant.

Attitude and Self Concept: The differences between the raw scores on the School Sentiment Index were compared using the Wilcoxon Matched-pairs, Signed-ranks test. Fourteen language experience children outscored their phonics counterparts. Conversely, ten phonics children outscored their language experience counterparts. The differences were not significant.

SUMMARY AND CONCLUSIONS

Children taught by an intensive phonics method outscored their language experience counterparts on five out of six measures including phonic applications, fluency, spelling, comprehension and writing. In two cases, the differences were significant. In three cases, they were not. However, inspection of the data presented by category, reveals that the phonics program tended to produce more children in the highest category and fewer children in the lowest across each of the skills. Also, the data approached statistical significance very closely. The data establishes a clear direction and, had there been a few more pairs included, would (in all probability) have crossed the significance line.

Further inspection of individual test profiles in phonics reveals that the language experience children had much of their trouble on long vowels and beginning and ending consonant blends and digraphs. These phonic problems were serious enough to prevent the affected children from attaining automaticity in decoding. The same children stumbled repeatedly on words containing long vowels, consonant digraphs, and consonant blends, while doing connected reading during the test for fluency. It is reasonable to believe that their phonic problems and lack of fluency affected their ability to comprehend.

There is an obvious need to modify the program in response to the data. One option is to simply discontinue the use of Success in Reading methods in favor of the more effective phonic methods. Another option is to modify the phonics component of the Success in Reading program in the following ways.

The first change would be to include specific diagnosis of phonic problems into the Success program. Any individual phonics test similar in makeup to the one used in this study would suffice.

The second change would be to use lists of word families (i.e. row, tow, blow, slow) to provide examples of the concepts to be learned. This marks a change from the Success manuals that suggest teachers solicit the word list from the children. The problem is that children offer words that vary widely in sound-spelling relationships, a source of potential confusion for low-functioning children. Fry's, THE READING TEACHER'S BOOK OF LISTS has many ready-made word lists that are a great aid for remediation in that the teacher can use word "families" that are consistent in sound spelling relationship without having to compose original lists of word families daily.

The third change would be to have the children work on independent activities keyed to their diagnosed phonic problems. The SRA Schoolhouse materials, for example, may be used flexibly so that the child only works on exercises for skills he or she needs. Just as important, the child does not spend time working on skills previously mastered.

A fourth change is to use linguistic readers that have sections of intensive practice on word families the children are having difficulty with including long vowels, consonant blends, and consonant digraphs. The Katherine Stern materials (Structural Reading, Random House) are especially good.

The number of children with problems in fluency should also be addressed. Fluency has been shown to be positively associated with reading comprehension among primary children. Typical methods for teaching fluency include modeling, repeated readings, reading to a target rate, timed readings, buddy reading, short plays, and dramatic reading. Another highly effective means of developing fluency, expression, and comprehension is the use of individual cassette players with "readalong" books.

In a larger perspective, this study illustrates the need to gather objective data through testing with young children. There is a strong, popular current of objection against testing of any kind with kindergarten, first, and second grade children and to rely, instead, on teacher judgment. The fallacy is that many of the program effects identified in this study were invisible to teacher judgment. Certainly, teachers had no way of comparing how a given child might have done using a different instructional method. Further, the deficiencies identified in this study would probably have serious consequences in third grade and beyond.

The study also has methodological strengths and weaknesses. It obviously does not conform to the requirements of classical, experimental research. It is a reasonable example of what Lee Cronbach and Patrick Suppes would call "decision-oriented" research or what Robert Hammond would call an "evaluative study". It was not possible to produce "pure" treatment types. But few teachers tend to teach "pure" programs. In each classroom, the instruction definitely had an overwhelming influence either from the Success in Reading manuals or from the Distar and Lippincott programs. The data is further stengthened by its similarity to the overall research evidence presented in Becoming a Nation of Readers (Anderson, 1985) that intensive phonic programs tend to produce better readers.

Caveats include the fact that the sample pairs were rather evenly distributed over all achievement levels. About one third of the subjects were at the high, middle, and low ends of the distribution. If the selection had been random rather than assigned, there would undoubtedly have been more subjects in the middle of the distribution. Therefore, the children at the high and low ends of the distribution are probably overrepresented.

It has long been difficult to find out what happens when one uses a given published program. This study does separate out treatment effects including phonic applications, fluency, spelling, composition, comprehension, and self-esteem. The

design should be useful for doing similar studies in other normal school setting.

More than anything, the study reflects on Success in Reading as another bandwagon in education that should be slowed if not stopped. Success in Reading has tremendous popular appeal that should be challenged empirically. Teacher judgment of merit, unsupported by data, is simply not enough. This study further confirms the great weight of accumulated evidence on beginning reading that children taught by an intensive phonics method have definite advantages that cannot be dismissed. Conversely, many children taught by the Success in Reading method are not doing as well as expected when analyzed objectively. It is possible, even in writing a research report, to be very concerned with the feelings of the Success teachers who are unquestionably altruistic in their motives. But it is even more important to concentrate on what the data means. Many children taught by the Success in Reading method are not learning critical skills needed for optimal progress in reading.

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